

PISTON FLOW SWITCH WITH A POINTER SCALE



- MECHANICAL · MAGNETIC PISTON · NO ELECTRONICS IN THE MEDIUM
- 0.8 ... 60 L/MIN IN FIVE STEPS · G1/4 TO G1 · 200 BAR
- SPDT 240 VAC / 110 VDC, 1.5 A · IP65 · OPTIONAL FLOW SCALE

KEY DATA

Property	Value	Property	Value
Setting range	0.8 ... 5 · 2 ... 12 · 3 ... 30 · 5 ... 40 · 6 ... 60 L/min, by size	Repeatability	$\leq \pm 3 \%$ of range
Output	Microswitch or reed, normally open and closed	Switching capacity	240 Vac / 110 Vdc, 1.5 A
Pressure range	200 bar stainless · 100 bar brass	Ambient temperature	-20 ... +70 °C
Process connection	G1/4 · G3/8 · G1/2 · G3/4 · G1 female	Protection grade	IP65
Materials	Switch housing and spring stainless · enclosure PC	Medium	Liquid

A spring holds a magnetic piston back; the flow pushes it aside and the magnet operates a switch outside the pipe. An optional pointer head shows the flow itself.



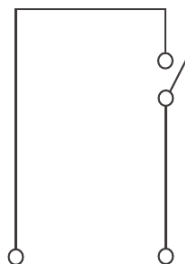
MEASUREMENT

Measuring principle	Mechanical — a magnetic piston on a precision spring; the flow displaces it and the magnet operates a microswitch or a reed outside the wetted part
Setting range	0.8 ... 5, 2 ... 12, 3 ... 30, 5 ... 40 and 6 ... 60 L/min. The ranges of each size are in the parameter table
Repeatability	$\leq \pm 3 \%$ of range
Indication	Optional pointer head reading the instantaneous flow in L/min on a scale between the marks min and max
Media	Liquid. Hydraulics, lubrication and circulating systems
Compensation	Temperature and pressure

MATERIALS AND PROCESS

Materials	Switch housing stainless steel · spring stainless steel · electronic enclosure PC
Process connection	G1/4, G3/8, G1/2, G3/4 or G1 female thread
Pressure range	200 bar with the stainless body, 100 bar with brass
Ambient temperature	-20 ... +70 °C
Protection grade	IP65
Weight	1.2 ... 1.4 kg, by size

WIRING



One changeover contact: a common terminal, a break contact and a make contact.

ELECTRICAL PROPERTIES

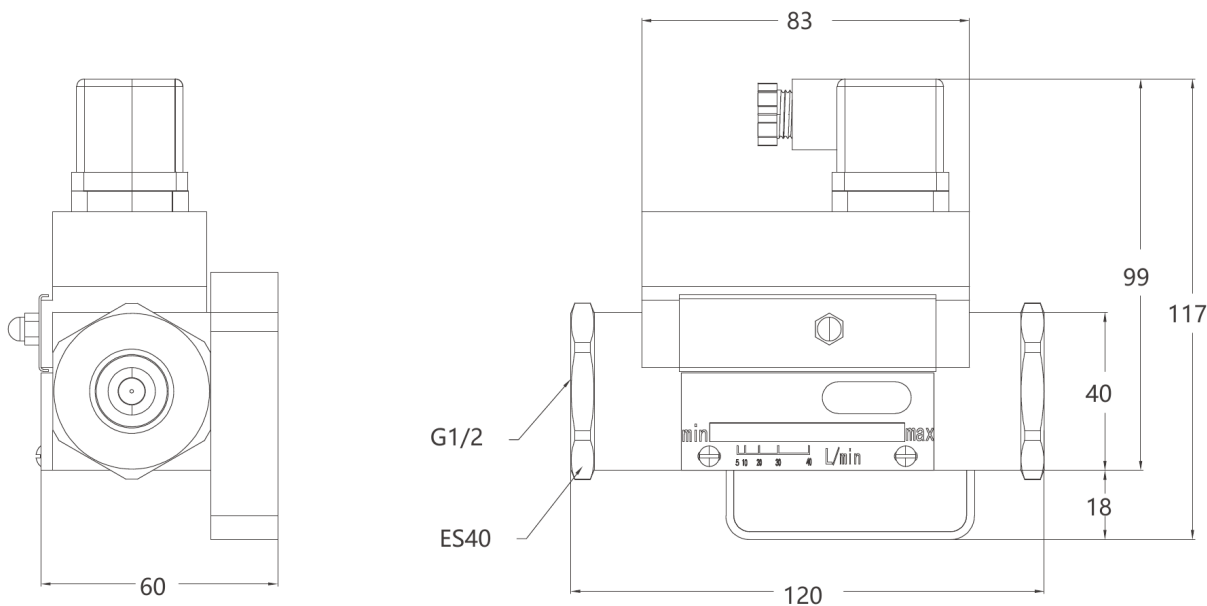
Output	One changeover: normally open and normally closed
Switching element	Microswitch or reed tube
Switching capacity	240 Vac / 110 Vdc, 1.5 A
Isolation	The mechanical and the electrical part are completely separated — the switch never touches the medium

POINTER HEAD

Pointer head	Optional. Reads the instantaneous flow in L/min
Scale	Marked min and max with graduations at 5, 10, 20, 30 and 40 L/min



DIMENSIONS (mm)



The pointer head is the turquoise window with the scale; the black box above it holds the switch, and the plug sits on top of that.

Two views: from the end and from the side, with the optional pointer head fitted. The dimensions are those of the G1/2 size.

OVERALL DIMENSIONS (mm)

Feature	mm	Note
Overall length	120	Across both process connections
Height with the plug	117	To the top of the DIN connector
Height of the body	99	Without the plug
Width of the plug housing	83	The black electrical enclosure
Height of the scale window	40	The pointer head, when fitted
Height of the base	18	Below the scale window
Width across the connection	60	Seen from the end
Across flats	40	Marked ES40 on the drawing
Process thread	G1/2	The size shown in the drawing



COMPLIANCE AND CERTIFICATION

Measuring principle	Mechanical, magnetic piston on a spring
Repeatability	$\leq \pm 3 \%$ of range
Protection grade	IP65
Pressure rating	200 bar with the stainless body
Wetted materials	Switch housing and spring stainless steel
Switching element	Microswitch or reed tube
Contact rating	240 Vac / 110 Vdc, 1.5 A

Each size is offered with one or two setting ranges.

SIZES, RANGES AND WEIGHTS

Thread	PN bar	Max flow L/min	Setting range 1 L/min	Setting range 2 L/min	Weight kg
G1/4	200	10	0.8 ... 5	—	1.4
G3/8	200	20	0.8 ... 5	2 ... 12	1.4
G1/2	200	40	2 ... 12	3 ... 30	1.3
G3/4	200	60	3 ... 30	5 ... 40	1.3
G1	200	80	5 ... 40	6 ... 60	1.2

Example: QSKG-G14K-DC-S-005-M. With the order, state the flow direction, the medium, the pipe bore and the wanted setting; the switch can be set before delivery. For a gaseous medium, state the pressure, temperature and type of gas as well.

ORDER CODE

Field	Code	Meaning
1 Series	QSKG	QSKG pointer piston flow switch
2 Connection	G14K · G38K	G1/4 female thread · G3/8 female thread
	G12K · G34K	G1/2 female thread · G3/4 female thread
	G1K	G1 female thread
3 Supply	DC · AC	24 Vdc $\pm 20 \%$ · 230 Vac $\pm 15 \%$
4 Body	S	Stainless steel
5 Setting range	005 · 012	0.8 ... 5 L/min · 2 ... 12 L/min
	040 · 060	5 ... 40 L/min · 6 ... 60 L/min
6 Connection	M	Hirschmann plug

